

22  
CLAIMS

- 1) A process for treating a Simmondsins extract comprising the steps of:
  - a) dissolving the Simmondsins extract in a solvent if the Simmondsins extract is in a dry form;
  - b) reacting the liquid Simmondsins extract with a carbonaceous adsorbent to obtain a mixture;
  - c) separating the adsorbent from the mixture to obtain a purified liquid extract; and
  - d) drying the purified liquid extract.
- 2) The process of claim 1 wherein the adsorbent is activated carbon.
- 3) The process of claim 2 further comprising the step of agitating the mixture during the reaction of the liquid Simmondsins extract and adsorbent.
- 4) The process of claim 3 wherein the amount of adsorbent reacted with the Simmondsins extract is within an approximate range of 5% to 100% of the dry weight of the Simmondsins extract.
- 5) The process of claim 4 wherein the reaction of the liquid Simmondsins extract and adsorbent is carried out at a temperature in a range of 4°C to 80°C.
- 6) The process of claim 5 wherein the mixture is agitated for a period of time between 10 minutes to 160 minutes.

- 7) The process of claim 3 wherein the amount of adsorbent reacted with the Simmondsins extract is within an approximate range of 20% to 80% of the dry weight of the Simmondsins extract.
- 8) The process of claim 7 wherein the reaction of the liquid Simmondsins extract and adsorbent is carried out at a temperature in a range of 40°C to 60°C,
- 9) The process of claim 8 wherein the mixture is agitated for a period of time between 30 minutes to 90 minutes.
- 10) The process of claim 1, wherein the process alters an organoleptic characteristic of the Simmondsins extract, wherein the organoleptic characteristic is selected from the group consisting of odour, bitterness, astringency and pungency.
- 11) A process for preparing a Simmondsins extract comprising the steps of:
  - a) eluting plant material containing Simmondsins with a polar organic solvent to dissolve the Simmondsins to produce an eluent containing the Simmondsins;
  - b) separating the eluent containing the Simmondsins from the plant material to obtain a dilute crude Simmondsins extract;
  - c) reacting the concentrated crude Simmondsins extract with a carbonaceous adsorbent to obtain an adsorbent mixture; and

- d) separating the adsorbent from the adsorbent mixture to obtain a purified Simmondsins liquid extract.
- 12) The process of claim 11 wherein the adsorbent is activated carbon.
- 13) The process of claim 12 further comprising concentrating the dilute crude Simmondsins extract to produce a concentrated crude Simmondsins extract and removing oils from the concentrated crude Simmondsins extract.
- 14) The process of claim 13 further comprising the step of agitating the mixture during the reaction of the liquid Simmondsins extract and adsorbent.
- 15) The process of claim 14 wherein the amount of adsorbent reacted with the Simmondsins extract is within an approximate range of 5% to 100% of the dry weight of the Simmondsins extract.
- 16) The process of claim 15 wherein the reaction of the liquid Simmondsins extract and adsorbent is carried out at a temperature in a range of 4°C to 80°C.
- 17) The process of claim 16 wherein the mixture is agitated for a period of time between 10 minutes to 160 minutes.
- 18) The process of claim 14 wherein the amount of adsorbent reacted with the Simmondsins extract is

within an approximate range of 20% to 80% of the dry weight of the Simmondsins extract.

- 19) The process of claim 18 wherein the reaction of the liquid Simmondsins extract and adsorbent is carried out at a temperature in a range of 40°C to 60°C,
- 20) The process of claim 19 wherein the mixture is agitated for a period of time between 30 minutes to 90 minutes.
- 21) The process of claim 11 further comprising the step of mixing the crude Simmondsins extract with a solvent comprising of ethanol and ethyl acetate.
- 22) The process of claim 21 wherein the adsorbent is activated carbon.
- 23) The process of claim 22 further comprising the step of agitating the mixture during the reaction of the liquid Simmondsins extract and adsorbent.
- 24) The process of claim 23 wherein reaction of the liquid Simmondsins extract and adsorbent is carried out at a temperature in a range of 4°C to 80°C.
- 25) The process of claim 24 wherein the amount of adsorbent reacted with the Simmondsins extract is within an approximate range of 5% to 100% of the dry weight of the crude Simmondsins extract.

- 26) A Simmondsins extract having an improved organoleptic characteristic produced in accordance with the process of any one of claims 1 to 25.
- 27) A feed containing a Simmondsins extract having an improved organoleptic characteristic produced in accordance with the process of any one of claims 1 to 25.
- 28) The feed of claim 27 wherein the feed is an animal feed.
- 29) The animal feed of claim 28 wherein the amount of the Simmondsins extract in the animal feed is between 0.1% to 5% by weight of the animal feed.
- 30) The animal feed of claim 28 wherein the amount of the Simmondsins extract in the animal feed is between 0.5% to 2% by weight of the animal feed.
- 31) An odorless and debittered Simmondsins extract containing between 39% to 91% Simmondsins by weight of the extract, and in which the amount of simmondisin ferulate is not more than 3% by weight of the extract.